

Achieving global ocean color climate data records

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Ocean color, or the spectral distribution of visible light upwelling from beneath the ocean surface, carries information on the composition and concentration of biological constituents within the water column. The CZCS mission in 1978 demonstrated that quantitative ocean color measurements could be made from spaceborne sensors, given sufficient corrections for atmospheric effects and a rigorous calibration and validation program. The launch of SeaWiFS in 1997 represents the beginning of NASA's on-going efforts to develop a continuous ocean color data record with sufficient coverage and fidelity for global change research. Achievements in establishing and maintaining the consistency of the time-series through multiple missions and varying instrument designs will be highlighted in this talk, including measurements from NASA'S MODIS instruments currently flying on the Terra and Aqua platforms, as well as the MERIS sensor flown by ESA and the OCM-2 sensor recently launched by ISRO.